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The Development of Physical Distribution Center in Marketing for Small and Micro Community Enterprise (SMCE) Product in Bangkotee, Samut Songkram

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Abstract

Thailand has played the important role in both ASEAN and worldwide markets as one of the main agricultural and industrial manufacturer in the world. This research has adapted concepts and attempted to develop a prototype of a physical distribution center in marketing logistics products in Bangkotee, Samut Songkram. The purpose of the research was 1) to study the potential and capability in terms of logistic in the area 2) to locate the best location to set up this center of distribution and logistics of SMCE product in the area. The sample group in the research was 51 inhabitants who operate the SMCE product in Bangkotee. The research used questionnaires with open-ended questions, asking for suggestions and recommendations from the participants. From analyzing the data, the result showed that the best location for the SMCE physical distribution and logistics center for the community would be at Teacher Somsong's house, located on 9/3 Moo 4, Tambon Bangprom, Ampur Bangkotee, Samut Songkram. The house is not far away from the national highway number 325. Besides the best location, the participants also suggested that in order to keep the SMCE running, they need the community to be strong and independent, and adapt concepts of sufficiency economy from His Majesty the King to use in the business plan. The research also has benefited the community by 1) setting up the first prototype of physical distribution center for their products 2) uniting people in the community of Bangkotee to work together and design the center together.

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1. Introduction

In the current world economy, it is challenging for Thailand to find a way by using its geographic potential to create economic value for the country. In order to achieve that goal, domestic logistics has to be developed to be world-class. The development of domestic logistics systems will support domestic entrepreneurs to be able to compete in the world market and to enable Thailand to be the center of commerce and investment. The improvement of manufacturing structures nationwide was attempted from making experts in specific businesses. The new trend of business networking has changed to be more individual and approachable. Business size tends to be smaller which emphasize only on one specific field and coordinate with the allies oversea. All these factors have opened the door for Small and Micro Community Enterprises (SMCE) business to have access to international market, especially for intellectual property. However, the main obstacle for SMCE marketing and management is the lack of business management skill and the knowledge of product improvement. The research team was aware of this problem and would like to apply knowledge and experience to find the best solution for creating prototype physical distribution center and the logistic activities for 2 products, processed food and coconut-shell handicrafts in Bangkontee, Samut Songkram. The result from this research is expected to be a solution for expanding the market size and distribution channels.

2. Literature Review And Hypotheses

2.1. Sufficiency Economy

Sufficiency Economy is the philosophy initiated by His Majesty the King as the method of self-sufficient lifestyle. The core of this philosophy is that national development should be based on moderation, reasonableness, risk management, knowledge and virtue. This philosophy can be adapted for use by all people.

2.2. Physical distribution and transportation

Physical distribution is a value-added service. It creates place utility and time utility. One product can have a beautiful package and good quality, but it will be useless if it cannot be delivered to the customers on time. There are many elements needed for a good physical distribution system. These elements are customer services, transportation, inventory control, product handling, order processing and warehousing.

2.3. Perfect Location

There are 7 factors in terms of looking for the right location 1) source of resources 2) labor 3) transportation expenses 4) facilities 5) market and customers 6) rules and regulations of the particular area 7) investment budget

2.4. Designing the distribution center

Storage is a place to keep the product. It can be a warehouse, distribution center or cargo holding. Since the space is very valuable, one must make sure that the space will be allocated to benefit the most for the business. There are 6 steps for space allocation. 1) specify the space 2) scale the size of the space for each usage 3) specify the space to keep the product 4) conduct how to keep the product 5) specify the product-storage position in the space 6) specify unsuitable space in which to keep the product.

2.5. Logistics

The National Economic and Social Development Board has summarized the logistics development system into these steps. 1) Physical distribution: focusing on delivering products to customers 2) Internally integrated logistics: logistics system before manufacturing 3) External integrated logistics: connecting all modes of transportation

2.6. Community Enterprise

Community enterprise is a significant sub-sector within the wider social enterprise sector. It involves community business activities in both manufacturing and service. The business in community enterprise is run by people in the same community in form of juristic persons or saving groups. Community enterprise is considered a type of business where people make a living and can be financially independent by that business in which they collectively work.

3. Methodology

3.1. Research Goal

The research is to develop a prototype physical distribution center in order to expand the market and improve logistics activities in SMCE of Bangkotee, Samut Songkram..

3.2. Sample and Data Collection

The sample groups of participants in this research were people who work in SMCE business in Bangkotee, Samut Songkram. The sample group was selected by purposive sampling method.

3.3. Analyses and Results

Research team analyzed the data by the following details.

- 1) Analyzing the general information on the questionnaires. Questionnaires used in this research were the check-list and the statistics were kept in forms of percentage.
- 2) Analyzing the need of logistic potential improvement for SMCE in Bangkotee by the questionnaires with 5-point Rating Scale. The statistic base using in this section was mean and standard deviation
- 3) Analyzing the best location for the physical distribution center and logistics system by using the 5-point rating scale questionnaires with the open-ended questions. The statistic base using in this section was mean and standard deviation
- 4) Comments from open-ended questions were analyzed and summarized in a descriptive paragraph.

4. Findings

The findings from the research are displayed below.

Table 1: The volume of productivity in each area

Area	Productivity)Baht/Year(Axis		Multiply productivity and axis	
		X)longitude(Y)latitude(P*X	P*Y
1.Ban Sarapee	222,000	99.914947	13.475419	22181118.23	2991543.018
2.Ban Somsong	194,400	99.947426	13.447914	19429779.61	2614274.482
3.Ban Bangkotee	194,760	99.943721	13.473103	19465039.1	2624021.54
4.Ban Suanpuangtong	117,600	99.976187	13.486457	11757199.59	1586007.343
Total	728,760			72833137.54	9815846.383

$$\text{Note: X-axis)longitude(} = \frac{72833137.54}{728760}$$

$$= 99.94118303$$

$$\text{Y-axis)latitude(} = \frac{9815846.383}{728760}$$

$$= 13.46924417$$

From table 1, the result from x-axis was 99.94118303 and y-axis was 13.46924417, which indicated the location of 9/3 Moo 4 Tambon Bangprom, Ampur Bangkontee, Samut Songkram. This location is on National Highway number 32 and is 300 meters away from the main road. The advantage of this location is that it's close to the highway and will benefit the transportation and logistics system in Bangkontee

Table 2: Mode score from qualitative evaluation factor

Factors	Weight	Location			
		Ban Sarapee	Ban Somsong	Ban Bangkontee	Ban Suanpuangtong
Technique	0.1	0.41	0.32	0.30	0.41
Land	0.1	0.49	0.31	1.01	0.59
Communication network	0.1	0.54	0.68	1.07	0.41
Infrastructures	0.1	1.05	0.93	0.10	0.78
Materials	0.2	1.31	0.79	1.14	0.18
Economics	0.1	0.41	0.84	0.37	0.24
Social	0.1	1.20	1.14	0.84	0.34
Marketing	0.1	1.15	1.51	0.22	1.11
Others	0.1	0.03	0.12	0.24	0.23
Total	1	6.59	6.64	5.29	4.29

Note: Sum of scores from all factors = 22.81

All the scores were used to calculate and adjust the weight in terms of quality in each factor. Table 3 shows the result of the calculation.

Table 3: Score from qualitative evaluation with rank

Location	Qualitative score after weight adjustment	Rank
1.Ban Sarapee	0.2889	2
2.Ban Somsong	0.2911	1
3.Ban Bangkontee	0.2319	3
4.Ban Suanpuangtong	0.1881	4
Total	1	

5. Conclusion

All 4 locations used in this research are considered to be the learning center of the community, no matter if they are selected to be the prototype center of physical distribution or not. However, when talking about success, one factor that can be used to consider if the center is successful or not, might be the number of people coming to learn from the center constantly; this would be the concrete proof which can be verified. Thus, some learning centers received a low score.

For the location of the physical distribution center prototype, the result showed that the most suitable location according to the statistics was Baan Somsong, located on 9/63 Moo 4, Tambon Bangprom, Ampur Bangkontee, Samut Songkram. It is on national highway number 325. From the Google maps the geographic information, this location is considered the best for the distribution purpose. That result is related to the research of Sumeth Padoongsap (2003) who studied the factors for selecting the best manufacturing location for rubber and tires. This research was conducted by his team and submitting questionnaires among 22 tires manufacturers around Thailand.

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